Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

20111 Shay Road • Victorville, California 92394
Telephone: (760) 246-8638 • Fax: (760) 246-5440
e-mail: vvwra@primenet.com

March 19, 1999

Ms. Lauren Fondahl
USEPA Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

RE: 40 CFR Part 503 Annual Biosolids Monitoring Report for 1996

Dear Ms. Fondahl;

On August 6, 1998, VVWRA filed an Annual Biosolids Monitoring Report for calendar year 1996 as required by 40CFR Part 503 regulations (copy attached). This letter serves to notify USEPA that the 1996 Annual Biosolids Report previously filed by VVWRA contained an error resulting from misinformation provided to VVWRA by Pima Gro Systems, Inc., the firm that performed our biosolids hauling and land application. The original 1996 submittal indicated that all of VVWRA's material had been land applied.

In January 1999, VVWRA received a tip that some of VVWRA's biosolids hauled to Riverside County in 1996 were still in storage and had not been properly land applied. On January 26, 1999, Pima Gro confirmed that approximately 1,500 tons of biosolids from VVWRA were in storage in a pile at the corner of Stetson Road and State Route 79 in Riverside County. I notified both the Lahontan and the Santa Ana Regional Water Quality Control Boards of the existence of the stored material. On March 5, 1999, I received a letter from Pima Gro indicating that all of the stored material had been land applied (copy attached). Please note that VVWRA certified the material as meeting Class A requirements under Part 503.

I trust that this letter will suffice to correct the inaccurate information contained in our original Biosolids Monitoring Report for 1996. If you need additional documentation or if you have additional questions, please feel free to call.

Sincerely,

Daniel P. Gallagher
General Manager

Attachments

cc: Harold Singer, Executive Officer, Lahontan Regional Water Quality Control Board
Ben Price, Merriwood Corporation
Roy Dagnino, Operations Supervisor

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PIMA GRO SYSTEMS, INC.
A SYNAGRO TECHNOLOGIES COMPANY SM

P.O. Box 7547
Redlands, CA 92375
Phone (909) 798-8717
FAX (909) 793-9954

March 5, 1999

VIA FACSIMILE and OVERNIGHT MAIL

Daniel P. Gallagher
General Manager
Victor Valley Wastewater Reclamation Authority
20111 Shay Road
Victorville, CA 92394

RE: Land Application of Biosolids from VVWRA, 1996 and 1998

Dear Mr. Gallagher;

Pima Gro's handling of the Class A biosolids from your facility was, to my knowledge, handled in full conformance with our Proposal, the Agreement and all applicable laws, rules and regulations. As to the length of time material was staged before application; we like to see material applied as soon as practical in order to validate the reuse concept and to avoid nuisance situations. Accordingly, once we became aware of the Stetson stock pile, we promptly acted and resolved the situation. The Stetson Road stockpile was applied last week. Incidentally, the Avenue 65 stockpile was also applied last week in accordance with original plans for that farm.

In response to specific requests for information, the following is provided:

1. Dates delivered to Stetson Road and Ave 65.

   Class A biosolids was delivered to Stetson Road in 1996 between October 27th and December 28th. The actual haul days in October were the 27th and 28th. In November, we hauled the 9th, 10th, 11th, 14th, 15th, 16th, 17th, 18th, 20th, 21st, 23rd, 26th, 27th, 29th and 30th. In December we hauled the 1st, 6th, 7th, 8th, 20th, 21st, and 28th. Class A biosolids was delivered to Avenue 65 in 1998 between March 30th and May 1st. The actual hauls days in March were the 30th and 31st. In April we hauled the 1st, 2nd, 20th, 21st, 22nd, 23rd and 24th.

2. Reasons for long delay in land application.

   Class A material is marketed and delivered to individual growers as a soil amendment. Most growers apply the material themselves. Class A material is not regulated in Riverside County and we do not closely monitor each delivery. Pima Gro does perform due diligence on prospective customers, evaluating the overall

situation. We look at the appropriateness of the application rate, the likelihood of the material being spread, the location, the overall legitimacy of the operation and the probability the staging and use of Class A biosolids will not cause a nuisance. We do perform spot checks and any problems found are resolved. We normally like to see the material delivered spread in the current season or by the next season.

The Stetson road material was delivered to the Carl Rheingan Farm in late 1996. Carl Rheingan agreed, in writing, to spread the material. Pima Gro did make several checks to insure spreading was progressing and that the operation was not creating a nuisance. We should have followed up to insure the entire amount delivered was applied within a reasonable period of time.

The Avenue 65 material was delivered to the Torres Ranch in the Spring of 1998, late in the soil amendment season for dates. The material was intentionally staged for use the following amendment season. With this in mind, the material was staged far off the road so as to not create a nuisance. Some material was applied as it was delivered, the balance staged for the next season. Pima Gro was aware of this staged material and had been monitoring the spreading progress when you first called last month.

3. Reason for not advising VVWRA of material not spread.

Although we believe this staging of Class A biosolids is in full compliance with the 503 regulations, Riverside County Regulations and our Contract and Sub-Contract Agreement with VVWRA, we should have notified you given your level of interest in the disposition of Class A biosolids. We appreciate your concern for doing things right. I was not aware of your interest until our conversation last month. You had indicated to me that we reported to VVWRA all material had been spread. I am not aware of any such communication(s) and you indicated you would forward a copy which I have not yet received.

4.& 5. Correcting reports and notifying agencies.

A review of Pima Gro's EPA 1996 and 1998 Annual Reports and Riverside County monthly reports, indicated that no reports were issued to the federal, or county agencies concerning Class A biosolids. The justification for this action was VVWRA's letter to Pima Gro, dated 9/30/96, certifying VVWRA material as Class A biosolids.

Per Pima Gro's Proposal to VVWRA dated, 7/8/96, Section 5.a. *TYPE OF REUSE*, outlines the procedure to be followed for the application of Class B biosolids. The sixth paragraph states, "Pima Gro may pursue having the Authority's biosolids certified as meeting the Class A pathogen reduction requirements of 40 CFR 503.32 (a)(6)(Class A, Alternative 4) so to minimize reporting, tracking and site restrictions of 40 CFR 503." That action was accomplished in a letter sent to the County of Riverside's Department of Environmental Health on 11/7/96. The County responded

to Pima Gro's request with a letter on 11/7/96 stating,"Riverside County does not currently regulate the land application of biosolids that meet Class A criteria." Therefore, the applications were not reported per Pima Gro's interpretation of 40 CFR 503.10(c)(1) as stating that there are no provisions for reporting or tracking Class A biosolids.

6. Other Information.

With respect to other regulator agencies, we have not seen VVWRA's NPDES Permit requirements. The NPDES permits we have seen from other customers follow the EPA 503 requirements. If VVWRA's NPDES Permit requires reporting of land application of Class A biosolids, we would appreciate a copy of the permit or details on your reporting requirements so we can address the reporting issue. Without that knowledge, it is our opinion that no further action is required or possible by Pima Gro.

Pima Gro's goal with Class A biosolids is to improve crop growth in jurisdictions where this material is allowed and to insure it is used at sensible agronomic rates without causing a nuisance and in conformance with applicable laws, rules and regulations. Should you have reporting requirements that we are not aware of, we will certainly adjust our practices to meet your requirements once we are apprised of your needs. I hope this information provided answers your questions and I look forward to hearing from you.

Regards,

Wilson E. Nolan
President
Pima Gro Systems, Inc.

CC: Dr. Johnson
Paul Healy

Victor Valley Wastewater Reclamation Authority

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August 6, 1998

Ms. Lauren Fondahl
U.S. EPA - Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

RE: **Annual Biosolids Monitoring Report**

Dear Ms. Fondahl:

Enclosed are the annual monitoring reports for 1996 and 1997, required under 40 CFR Part 503, Biosolids generated at the Authority were land applied in 1996, and held in storage on the plant site in 1997, pending land application in 1998. The two land application sites used in 1996 were the Antelope Valley Site and the Riverside County Site. The land applied biosolids in 1996 were dewatered, dried, stored, tested for compliance with Class A requirements, trucked to the reuse sites, staged, applied and incorporated. The basis for determining that the biosolids were Class A is shown in Table A in each of the two annual reports. Although there are currently no reporting requirements for the land application of Class A biosolids, the Authority does maintain records on the ultimate use of its Class A biosolids and those records are summarized in Table A of these two annual reports as well.

Regarding the 1996 Annual Report, I certify under penalty of law that the vector attraction reduction requirements in 503.33(b) (7) and the pathogen reduction requirements in 503.32(b) (6) were not met. Two of the 4 required quarterly samples were not collected and analyzed. Regarding the 1997 Annual Report, I certify under penalty of law that the vector attraction reduction requirements in 503.33(b) (7) were met, except for one data point, and the pathogen reduction requirements in 503.32(b) (6) were met. These determinations have been made under my direction and supervision in accordance with the system design to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

Should you have any questions or require additional information, please contact me or Mr. Ben Price, The Merriwood Corporation, at (760) 723-0025, who assisted the Authority in the preparation of these reports.

Sincerely,

Daniel P. Gallagher
General Manager

cc: Harold Singer, Executive Officer, Lahontan RWQCB

Victor Valley Wastewater Reclamation Authority
WASTEWATER TREATMENT PLANT

ANNUAL BIOSOLIDS MONITORING REPORT - 1997

1. GENERAL INFORMATION

Name of Generator:	Victor Valley Wastewater Reclamation Authority
Facility Address:	20111 Shay Road, Victorville, CA 92394
Mailing Address:	20111 Shay Road, Victorville, CA 92394
Contact Person:	Daniel P. Gallagher, General Manager
Telephone:	(760) 246-8638
Ownership:	Publicly Owned Treatment works

2. FACILITY INFORMATION

Name:	Victor Valley Wastewater Reclamation Authority
Location:	20111 Shay Road, Victorville, CA 92394
Telephone:	(760) 246-8638
NPDES Number:	CA 0102822
Influent Flow:	7.90 mgd for 1997 (average daily flow rate)

3. BIOSOLIDS INFORMATION

Treatment: Biosolids at the Victor Valley Water Reclamation Authority, which begin as primary and waste activated sludge, are thickened, anaerobically digested, dried in soil-cement lined drying lagoons, and then removed from the beds and stored on site until they achieve Class A quality. Ultimately (and within 2 years) they are transported to farm lands where the nutrients and humus value of the material is beneficially reused to grow such crops as dates, citrus and vegetables.The 1997 stored biosolids were planned for land application in 1998.

Quantities Generated: = 2,355 wet tons[1]
= 1,766 dry tons
= 1,602 dry metric tonnes

[1] Moisture content estimated at 75% total solids

Monitoring & Frequency:

- Pathogen reduction is monitored by testing for Fecal Coliform, Helminth Ova and Enteric Virus. Sampling and testing for compliance is required once every quarter.
- Sampling and testing for 40 CFR 503 Table 3 pollutant concentrations are required once every quarter.
- Sampling and testing for biosolids moisture content is required once every quarter.

Sample Type: Solar drying bed dewatered cake.

Quality: • **Class A** in accord with 40 CRF 503.10(c)(1), except for the 4/16/97 VAR.

4. LAND APPLICATION INFORMATION

Volume Applied = **0 wet tons** (material stored on site for the entire year)

Pollutants: see Table A, Section 1

Pathogens: see Table A, Section 2

Vector Attraction Reduction: see Table A, Section 3

Land Application Sites: The District distributes biosolids that have achieved Class A quality. Currently there are no rules or regulations that require recordkeeping or monitoring of Class A applications. None-the-less the District and its service provider do maintain records. For 1997 all biosolids were stored on site in the Districts biosolids storage area, to be land applied in 1998.

5. DISPOSAL INFORMATION....

Volume = **0 wet tons**

6. LABORATORY DATA.....see Table A, page 4.

Table A
Victor Valley Wastewater Reclamation Authority

Compliance Summary
1997

	4/16/97	6/30/97	9/17/97	11/20/97	2/11/98	Annual Av.	Annual Max	Applicable 503 Criteria
1. Biosolids Pollutant Concentrations - see Note (2)								
Arsenic			2.29	5.45	4.38	4.04	5.45	41
Cadmium			0.8	2.1	5.9	3.0	5.92	39
Chromium			16.2	55.7	38.9	36.9	55.7	1200
Copper	Data Missing (A)		76.40	222.00	204.00	167.47	222	1500
Lead			7.25	22.50	38.80	22.85	38.8	300
Mercury			0.83	3.00	1.72	1.85	3	17
Molybdenum								deleted
Nickel			5.02	16.40	14.10	11.84	16.4	420
Selenium			1.08	3.33	1.72	2.04	3.33	(1) 36/100
Zinc			126	381	306	271	381	2800

Notes: (1) 40 CFR 503 limit changed from 36 mg/kg to 100 mg/kg on October 25, 1995.

(2) per 40 CFR 503.13(b)(3), Pollutant Concentrations.

2. Pathogens							
Hel Ova/4 gm. (3)	<1	<1	<1	<1	<1	<1	<1
PFU EV/4 gm. (4)	<1	<1	<1	<1	<1	<1	<1
MPN FC/gm. (5)	2	<2	<2	<2	<2	<2	<1000

Notes: (3) Helminth Ova per 4 grams.

(4) Plaque-forming Unit Enteric Virus per 4 grams.

(5) Most Probable Number of Fecal Coliform per gram of total solids.

3. Vector Attraction Reduction (B)					
Solids Concentration	56.50% (B)	81.20%	80.20%	93.10%	solids >=75%

(A)...A note in Authority files confirms that the former Operations Supervisor did not collect these quarterly samples. The oversight was discovered and quarterly sampling and testing was resumed.

(B)...Vector Attraction Reduction (VAR) has been achieved by drying stabilized solids to a level equal to or greater than 75% solids before mixing with other materials. The biosolids represented by the 4/16/97 sample were retained in the Authority's biosolids storage area from approximately 4/16/97 through 2/28/98. The Authority believes that during this time the biosolids represented by this sample attained 75% or more solids concentration.

Victor Valley Wastewater Reclamation Authority
WASTEWATER TREATMENT PLANT

ANNUAL BIOSOLIDS MONITORING REPORT - 1996

1. GENERAL INFORMATION

Name of Generator:	Victor Valley Wastewater Reclamation Authority
Facility Address:	20111 Shay Road, Victorville, CA 92394
Mailing Address:	20111 Shay Road, Victorville, CA 92394
Contact Person:	Daniel P. Gallagher, General Manager
Telephone:	(760) 246-8638
Ownership:	Publicly Owned Treatment works

2. FACILITY INFORMATION

Name:	Victor Valley Wastewater Reclamation Authority
Location:	20111 Shay Road, Victorville, CA 92394
Telephone:	(760) 246-8638
NPDES Number:	CA 0102822
Influent Flow:	7.58 mgd for 1996 (average daily flow rate)

3. BIOSOLIDS INFORMATION

Treatment: Biosolids at the Victor Valley Water Reclamation Authority, which begin as primary and waste activated sludge, are thickened, anaerobically digested, dried in soil-cement lined drying lagoons, and then removed from the beds and stored on site until they achieve Class A quality. Ultimately (and within 2 years) they are transported to farm lands where the nutrients and humus value of the material is beneficially reused to grow such crops as dates, citrus and vegetables. This year Class A biosolids were land applied from October 21, 1996 to December 29, 1996 to two farms, the Antelope Valley Site (AOD Site) and the Riverside County Site (R1 Site).

Quantities Generated: = 1,747 wet tons[1]
= 1,310 dry tons
= 1,188 dry metric tonnes

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[1] Moisture content estimated at 75% total solids

Monitoring & Frequency:

- Pathogen reduction is monitored by testing for Fecal Coliform, Helminth Ova and Enteric Virus. Sampling and testing for compliance is required once every quarter, but was only conducted twice in 1996.
- Sampling and testing for 40 CFR 503 Table 3 pollutant concentrations are required once every quarter, but was only conducted twice in 1996.
- Sampling and testing for biosolids moisture content is required once every quarter, but was only conducted twice in 1996.

Sample Type: Solar drying bed dewatered cake.

Quality:
- Class A based on one test result.

4. LAND APPLICATION INFORMATION

Volume Applied = 5,353 wet tons[2]
= 4,229 dry tons
= 3,838 dry metric tonnes

Pollutants: see Table A, Section 1

Pathogens: see Table A, Section 2

Vector Attraction Reduction: see Table A, Section 3

Land Application Sites: The District distributes biosolids that have achieved Class A quality. Currently there are no rules or regulations that require recordkeeping or monitoring of Class A applications. None-the-less the District and its service provider have maintained the following site application records:

Site:	**Antelope Valley Site**
Owner:	Olin E. Derrick
Operator:	**Pima Gro**
Contact:	Gary Bruggeman
Address:	P.O. Box 7547, Redlands, CA 92375
Telephone:	(909) 798-8717
Site Location:	S1/2 of Section 6, T7N, R10W, MDB&M 200 acres Northwest of 90th Street East and Avenue H intersection, in County of Los Angeles, CA
Permits:	Lahontan RWQCB Order No. 6-95-100-08
Biosolids Quantity:	**671.7 wet tons**
Application Rate:	9.6 d.t./acre
Nitrogen Rate:	163 lbs/acre
Crops Planted/Grown:	Barley

[2] Averaged 79% total solids

Site:	**Riverside County Site**
Owner:	Carl Rheinegains
Operator:	**Pima Gro**
Contact:	Gary Bruggeman
Address:	P.O. Box 7547, Redlands, CA 92375
Telephone:	(909) 798-8717
Site Location:	Section 3, T6S, R2W, MDB&M
Permits:	none required
Biosolids Quantity:	**4,681 wet tons**
Application Rate:	15 d.t./acre
Nitrogen Rate:	not reported
Crops Planted/Grown:	not reported

5. DISPOSAL INFORMATION....

   Volume = **0 wet tons**

6. LABORATORY DATA.....See Table A, page 4.

Table A
Victor Valley Wastewater Reclamation Authority

Compliance Summary
1996

	1st Quarter 2/11/96	2nd Quarter 3/28/96	3rd Quarter 1996	4th Quarter 11/6/96	Annual Av.	Annual Max	Applicable 503 Criteria
1. Biosolids Pollutant Concentrations - see Note (2)							
Arsenic	4.38	ND	Missing Data (A)	8.90	6.6	8.9	41
Cadmium	5.92	ND		3.3	4.6	5.92	39
Chromium	38.9	41.3		76.8	52.3	76.8	1200
Copper	204	160		361	241.7	361	1500
Lead	38.8	22.5		45.30	35.5	45.3	300
Mercury	1.72	2.84		3.96	2.8	3.96	17
Molybdenum	4.26	14.80		10.1	9.7	14.8	deleted
Nickel	14.1	11.3		30.90	18.8	30.9	420
Selenium	1.72	0.29		5.74	2.6	5.74	(1) 36/100
Zinc	306	391		544	413.7	544	2800

Notes: (1) 40 CFR 503 limit changed from 36 mg/kg to 100 mg/kg on October 25, 1995.

(2) per 40 CFR 503.13(b)(3), Pollutant Concentrations.

		3/26/96		11/6/96			
2. Pathogens							
Hel Ova/4 gm. (3)	missing data (A)	<1	missing data (A)	<1	<1	<1	<1
PFU EV/4 gm. (4)		<1		<1	<1	<1	<1
MPN FC/gm. (5)		12		ND	6	12	<1000

Notes: (3) Helminth Ova per 4 grams.

(4) Plaque-forming Unit Enteric Virus per 4 grams.

(5) In 1996 this unit of measure was reported as MPN FC/100ml.
This was corrected in later years to MPN per gram of total solids.

3. Vector Attraction Reduction (B)

Solids Concentration	Missing Data (A)	79.10%	Missing Data (A)	64.60%	71.85%	64.60%	solids >=75%

(A)...Sample was not collected in this quarter. A new sampling /testing procedure is now in place.

(B)...Vector Attraction Reduction (VAR) has been achieved by
drying stabilized solids to a level equal to or greater than 75%.
Authority's biosolids storage area from approximately 4/16/97 through 2/28/98. The Authority believes that during this time the biosolids represented by this sample attained 75% or more solids concentration.